(19) World Intellectual Property Organization

International Bureau



1 (1818) 1818 | 18 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 |

(43) International Publication Date 27 January 2005 (27.01.2005)

PCT

(10) International Publication Number WO 2005/007837 A1

(51) International Patent Classification7: A61K 41/00

C12N 5/06,

(21) International Application Number:

PCT/GB2004/003025

(22) International Filing Date:

13 July 2004 (13.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0316431.6

14 July 2003 (14.07.2003)

(71) Applicant (for all designated States except US): CELL-FACTORS PLC [GB/GB]; Babraham Hall, Babraham, Cambridge CB2 4AT (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PHILLIPS, Ian [GB/GB]; Oral Pathology, School of Clinical Dentistry, Claremont Crescent, Sheffield S10 2TA (GB). GANGEMI, Lavinia [IT/GB]; Oral Pathology, School of Clinical Dentistry, Claremont Crescent, Sheffield S10 2TA (GB). KIBRIA, Mohamed, Kiron [IN/GB]; Oral Pathology, School of Clinical Dentistry, Claremont Crescent, Sheffield S10 2TA (GB). STRINGER, Bradley [AU/GB]; Oral Pathology, School of Clinical Dentistry, Claremont Crescent, Sheffield S10 2TA (GB). WEST, William [GB/GB]; Cellfactors Plc, Imperial House, Imperial Science Park, Imperial Way, Newport NP10 8UH (GB). PANDYA, Anant [GB/GB]; 35 Grimwade Avenue, Croydon CR0 5DJ (GB). SIEPLE, Christine [DE/GB]; Biomedical Research Consulting Ltd, Leeplace House, Leeplace, Pulborough RH20 1DF (GB).

- (74) Agent: DAVIES, Jonathan, Mark; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IRRADIATED OSTEOINDUCTIVE EXTRACELLULAR MATERIAL

(57) Abstract: Extracellular material obtained from skeletal cells may be used in the stimulation of new bone production. The active extracellular material may be derived from cultures of immortalised hypertrophic chondrocyte-like cells. The invention provides a method for producing osseoinductive extracellular material from skeletal cells which method comprises or consists of the steps of: (1) culturing skeletal cells in a suitable culture medium; (2) harvesting extracellular material produced by said cultured cells; and optionally isolating and/or purifying said harvested material; (3) Iyophilyzing said material; and (4) irradiating said material with gamma radiation. The invention also provides a method of treating of patient (human or other animal) requiring bone repair/regeneration, which involves administering to said patient an osseoinductive amount of said material.

